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MEMORANDUM TO FILE - [REDACTED]

August 13, 1962

Westinghouse
Mar file JP

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On August 10, 1962, [REDACTED]

[REDACTED] to discuss present activities under contract WE-1000 as they relate to the pending extension proposal (submitted 7/19/62).

1. Present activities

[REDACTED] noted that preliminary engineering design, critical component specification and procurement is in process as necessary to meet the schedule dates quoted.

In the area of antenna stabilization and motion compensation, antenna installation trade-offs are being conducted by Westinghouse antenna engineers and vehicle engineers. Some shortening of the final antenna will be required to allow for stabilization space. REAC simulation of the stabilization system is being conducted to determine component specifications and selections. The breadboard doppler frequency (clutter) tracker currently is being flown open-loop in the F-101 to assess its performance. Film speed control is scheduled to be introduced as retrofit into the existing first model lens optics recorder.

In the area of resolution improvement, it is notable that the first model lens optics recorder recently produced 1.25 mil spot size on film with a 1.0 mil CRT in the laboratory. It is being withheld from flight test for another week or two to permit lab. test with a new Westinghouse 0.5 mil CRT.

Regarding transmitter designs the following points were made. Improved switches have been produced and operated in the ring transmitter. A 16 nanosecond ring has been operated in the laboratory. Improved tuners are on order and improved isolators are being ordered. However, with all improvements anticipated within the next few months no more than 40 watts average output is anticipated, although up to 80 watts might be obtainable in a longer time with further effort on tubes, switches, and tuners.

To permit early assessment of the SFD cross-field amplifier, a breadboard modulator is being built to be complete in five weeks. An experimental medium-power tube can be available at the same time for \$18K. Immediate procurement of this tube was agreed upon.

Preliminary design of a backup chirp transmitter is being started. BTL will be approached again for network quotations.

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2. Action

Mutual agreement was reached on the following program action items:

a. Westinghouse will proceed on the extension to the [] program as proposed, subject to the limitation of funds with the following modifications:

- (1) eliminate short fiber recorder development
- (2) continue resonant ring development as proposed but limit the hardware modification to that required to support the RF-101 Flight Test Program.
- (3) expedite the crossed field transmitter program if possible.
- (4) work on chirp is limited to Westinghouse preliminary design. (see action d and e below).

b. Westinghouse will advise about August 14th expenditure and commitment rates for the revised [] Program indicating how long present funds will carry the program and rate additional funds are required.

c. Westinghouse will submit a final cost proposal on the extended [] program as modified under (a) above by August 24, 1962.

d. Westinghouse will advise as soon as possible expenditure and commitment budget rate on the proposed chirp program. Especially note funding requirements at times milestones are scheduled on the crossed-field amplifier program.

e. Westinghouse to proceed on defining a chirp program soliciting from [] a firm quotation. (Note - continued action on this item will be dependent upon customer decision based on (d).

3. Miscellaneous

a. In the event knowledgeable Air Force personnel inquire as to status of the program, we will consult our procurement office as such requests occur.

b. It is incumbent upon Westinghouse to keep the vehicle supplier informed of our progress.

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c. Westinghouse is to discuss with [] the cavity program and obtain all possible assistance from them or others on the resonant ring development.

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